U.S. ARMY-BAYLOR UNIVERSITY GRADUATE PROGRAM
IN HEALTH CARE ADMINISTRATION

ANALYSIS OF VARIABLES AFFECTING THE LENGTH OF TIME SERVICE MEMBERS SPEND IN THE UNITED STATES ARMY PHYSICAL DISABILITY EVALUATION SYSTEM AT IRWIN ARMY COMMUNITY HOSPITAL

A GRADUATE MANAGEMENT PROJECT

SUBMITTED TO MAJOR MARK J. PERRY, Ph.D., CHE

IN PARTIAL FULFILLMENT OF REQUIREMENTS FOR

A MASTER'S DEGREE IN HEALTH CARE ADMINISTRATION

BY

CAPTAIN WILLIAM T. GOFORTH, CHE

FORT RILEY, KANSAS

APRIL 1998

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

1. AGENCY USE ONLY *(Leave blank)*	2. REPORT DATE	3. REPORT TYPE AND DATES COVERED
	APRIL 1998	FINAL REPORT (07-96 TO 07-97)

4. TITLE AND SUBTITLE
ANALYSIS OF VARIABLES AFFECTING THE LENGTH OF TIME SERVICE MEMBERS SPEND IN THE UNITED STATES ARMY PHYSICAL DISABILITY EVALUATION SYSTEM AT IRWIN ARMY COMMUNITY HOSPITAL

5. FUNDING NUMBERS

6. AUTHOR(S)

CPT WILLIAM T. GOFORTH, MS

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

IRWIN ARMY COMMUNITY HOSPITAL
FORT RILEY, KS

8. PERFORMING ORGANIZATION REPORT NUMBER

23-97

9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)

U.S. ARMY MEDICAL DEPARTMENT CENTER AND SCHOOL
BLDG 2841 MCCS-HRA US ARMY-BAYLOR PGM IN HCA
3151 SCOTT RD SUITE 1411
FT SAM HOUSTON, TX 78234-6135

10. SPONSORING / MONITORING AGENCY REPORT NUMBER

11. SUPPLEMENTARY NOTES

12a. DISTRIBUTION / AVAILABILITY STATEMENT

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED

12b. DISTRIBUTION CODE

13. ABSTRACT *(Maximum 200 words)*

The purpose of this analysis is to identify the variables which contribute to the length of time an individual service member remains in the disability review process at Fort Riley, Kansas. Results from this analysis will assist in the development of performance improvement initiatives that maximize the quality of the Army's Physical Disability Evaluation System (PDES). This research project targets the demographic, choice-related,and systemic variables affecting the total number of days Fort Riley soldiers were processed and adjudicated by the PDES during 1996.

14. SUBJECT TERMS

ARMY PHYSICAL DISABILITY EVALUATION SYSTEM

15. NUMBER OF PAGES
55

16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
NA	NA	NA	UL

ACKNOWLEDGMENTS

Completion of this analysis and the associated documentation is made possible by the patience, guidance, understanding, and academic advice of my professors, former classmates, military colleagues, and family. I wish to thank those people who have taken their time to discuss various research topics and provide valuable assistance throughout the development and submission of this graduate management project.

My utmost respect and gratitude goes to my US Army-Baylor University Graduate Program advisor, Major Mark Perry, Ph.D., for his academic advice, mentorship, and wise counsel which was crucial to the completion of this management project. Major Perry carefully reviewed my work and provided the necessary suggestions which enabled me to apply the skills I learned during my academic training.

Many thanks to my preceptor, Lieutenant Colonel Glenn Simpson, for enabling me to participate in various academic and career enhancing learning opportunities in healthcare administration. He supported my research goals throughout the residency year.

A special thanks goes to my former US Army-Baylor University classmates who provided background information on the Physical Disability Evaluation System, advice concerning data collection, and assistance with interpretation of SPSS data output. I owe much gratitude to Major M. Nicholas Coppola for taking the time to discuss his experience with the Army Physical Disability Evaluation System and assisting me with SPSS data interpretation. I am also grateful for the encouragement and statistical advice from Major James Montgomery.

Most importantly, my sincere thanks and appreciation go to my wife, Amy, who patiently dealt with my working weekends, evenings at the computer, and requests for her editing advice. She was always there to provide moral support and understanding when the times were tough. Her willingness to help will not be forgotten.

ABSTRACT

The purpose of this analysis is to identify the variables which contribute to the length of time an individual service member remains in the disability review process at Fort Riley, Kansas. Results from this analysis will assist in the development of performance improvement initiatives that maximize the quality of the Army's Physical Disability Evaluation System (PDES). This research project targets the demographic, choice-related, and systemic variables affecting the total number of days Fort Riley soldiers were processed and adjudicated by the PDES during 1996.

Optimizing the quality and efficiency of the Army's Physical Disability Evaluation System increases military readiness, improves patient care, and decreases the cost associated with delays in the disability processing of military service members. With the current system, unit commanders are responsible for referring soldiers to the servicing medical treatment facility for an evaluation when the soldier is unable to perform the duty of his or her office, grade, rank, or rating in accordance with Army Regulation 635-40. Soldiers who do not meet the Army's required medical standards due to a legally contracted disease, illness, or accidental injury are reviewed by a Medical Evaluation Board (MEB) and referred to a Physical Evaluation Board (PEB) to determine if soldiers are fit to continue military service. In order to effectively manage the evaluation process, the unit commanders and the medical treatment facility staff must ensure the timely disability processing of soldiers under their supervision.

Analysis of 139 PDES records at Fort Riley's Medical Activity, Irwin Army Community Hospital (IACH), produced data to support 17 independent predictor variables. The use of a backward elimination multiple linear regression equation with a confidence interval of 95% and a removal level of 0.10 results in the systematic removal of the following 16 predictor variables: admitting service, age, award compensation, congressional involvement, Desert Storm veteran, education, retirement eligibility, gender, length of service, marital status, MEDHOLD status, location of care, number of dependents, race, and unit type. The final restricted regression model yields one statistically significant predictor variable with a highly predictive finding shown by $R^2 = .21949$, $F[1,137] = 38.53$, and $p<.001$. The final regression equation accounts for 22 percent of variance in the total number of PDES processing days. Only 16.5 % of the PDES participants requested and/or received a formal PEB, but that action significantly increases the total number of days in the PDES. The analysis identifies a significant relationship with the dependent variable, total number of days in the PDES, and one independent variable, a service member's request for a formal PEB. The findings demonstrate that the number of PDES processing days are not a function of the 16 variables which are removed from the regression equation; therefore, performance improvement activities should focus on reducing the number of days it takes to process a soldier's request for a formal Physical Evaluation Board.

The researcher developed a tracking system to decrease Irwin Army Community Hospital's PDES processing time and improve the performance and quality of the disability system. The tracking system enables the Physical Evaluation Board Liaison Officer to track the soldier throughout the process and reduce the time soldiers are involved in the Physical Disability Evaluation System. The Patient Administration staff at IACH used the information from this analysis to significantly reduce MEB processing time and enhance the quality and efficiency of the PDES, leading to improved military readiness and service for the military beneficiary population.

TABLE OF CONTENTS

LIST OF FIGURES

Figure

LIST OF TABLES

Table

LIST OF ABBREVIATIONS

AMEDD	U.S. Army Medical Department
AR	Army Regulation
CHCS	Composite Health Care System
CY	Calendar Year (1 Jan - 31 December)
DA	Department of the Army
DA Pam	Department of the Army Pamphlet
DCA	Deputy Commander for Administration
DCCS	Deputy Commander for Clinical Services
DOD	Department of Defense
FORSCOM	U.S. Army Forces Command
IACH	Irwin Army Community Hospital
MEB	Medical Evaluation Board
MEDCOM	U.S. Army Medical Command
MEDDAC	U.S. Army Medical Activity
MEDHOLD	Medical Holding Unit
MTF	Medical Treatment Facility
PEB	Physical Evaluation Board
PEBLO	Physical Evaluation Board Liaison Officer
PULHES	Physical Profile Factors: P-physical stamina, U-upper extremities, L-lower extremities, H-hearing and ears, E-eyes, S-psychiatric
PDES	Physical Disability Evaluation System

CHAPTER 1

INTRODUCTION

Irwin Army Community Hospital (IACH) is experiencing significant changes, both financially and clinically, due to the implementation of TRICARE and a reduced annual operating budget. The current military medical environment demands more productivity and efficiency, as well as increased patient satisfaction. "In other words, health care organizations are being asked to do more with less, and to be nicer while they do it" (O'Connor and Shewchuk, 1995). Optimizing the quality and efficiency of the Army's Physical Disability Evaluation System (PDES) will increase military readiness, improve patient care, and decrease the cost associated with delays in the disability processing of military service members. The medical personnel who participate in the Army Physical Disability Evaluation System must become more efficient in order to survive in the modern environment of managed care and capitated budgets. This thorough analysis of an active Army Medical Evaluation Board process provides insight regarding factors resulting in physical disability processing delays.

This analysis identifies the factors which contribute to the length of time an individual service member remains in the disability review process at Fort Riley, Kansas. The study targets the significant variables associated with the highest number of days Fort Riley soldiers spent in the PDES in Calendar Year 1996 (1 January 1996 through 31 December 1996). Various demographic, choice-related, and systemic factors serve as predictor variables (independent variables) in analyzing the relationship with the dependent variable, the number of days it takes a

service member to complete the Physical Disability Evaluation System process. Table 1 shows a consolidated list of the dependent and independent variables used in the regression analysis.

Table 1. Consolidated list of variables used in the regression analysis

DEPENDENT VARIABLE (Y)	INDEPENDENT VARIABLES ($x_1, x_2 \ldots x_n$)	
Number of days to complete the Physical Disability Evaluation System (total number of days in PDES processing and adjudication)	Admitting service Age of soldier Award percentage Congressional request Desert Storm participant Educational level Retirement eligibility Formal board requested Gender	Length of service Marital status MEDHOLD assignment Military rank Location of care Number of dependents Race Unit of assignment

Irwin Army Community Hospital's Physical Evaluation Board Liaison Officer (PEBLO) provided historical information concerning all service members who completed the PDES evaluation at IACH in CY 96. This analysis used all 139 PDES cases (N=139) processed at Fort Riley. Multiple linear regression analysis is used to determine the significant relationships between the dependent and independent variables. A majority of the calculations and statistical results are derived from using the Statistical Package for Social Sciences (SPSS), Standard Version 6.0.1, September 1993.

The researcher discovered that IACH's PEBLO had an inefficient system for tracking a the service members progress through the PDES at the medical treatment facility. Therefore, the researcher developed a tracking system to decrease the hospital's PDES processing time and to provide a standardized source of information which management and empowered employees can

analyze to improve the performance and quality of the disability system. The tracking system enables the Physical Evaluation Board Liaison Officer to administratively follow the soldier throughout the process and reduce the time soldiers spend in the Physical Disability Evaluation System. Structured comparative performance feedback was used to improve the practice patterns of the medical staff. Applying the results of this analysis enhanced the quality and efficiency of the PDES at Irwin Army Community Hospital, leading to improved military readiness and better service for the military beneficiary population.

Conditions Which Prompted the Study

The design of a study regarding the Army's Physical Disability Evaluation System was prompted by three major issues or command interests: increased concern for military readiness, desire to maintain continuous quality improvement at Irwin Army Community Hospital, and a requirement for maximum utilization of limited financial resources. Irwin Army Community Hospital is the medical treatment facility (MTF) located at Fort Riley, Kansas. Military service members refer to the facility as the U.S. Army Medical Activity (MEDDAC). The medical and administrative staff at IACH are actively involved in the Army's Physical Disability Evaluation System. The MEDDAC Commander and the Deputy Commander for Administration (DCA) were interested in improving the physical disability evaluation process in order to meet the needs of the military beneficiaries and to efficiently manage limited resources, maximizing service and productivity.

Military readiness is a top priority for unit commanders, politicians, and the American public, especially now because of the reductions in active duty strength and decreased training funds. The former U.S. Army Surgeon General, Lieutenant General Alcide LaNoue, stated that soldiers in the PDES are a liability for unit deployment, and they adversely affect the overall readiness of the Army because of lengthy processing and the inability of a unit to requisition a deployable replacement (LaNoue 1996, LaNoue 2 1996). Medical treatment facility commanders understand the adverse effect to unit readiness, but they must provide a thorough evaluation with respect to physical ability to perform when a soldier's medical condition becomes questionable in (AR 635-40 1990). The determination of fitness or unfitness for military service, as well as the percentage rating for each unfitting compensable disability, is established by the Physical Evaluation Board only after optimum hospital improvement is attained. During this evaluation and decision period, the disabled soldier is not deployable nor can he/she complete his/her mission essential duties.

Irwin Army Community Hospital's commitment to readiness is confirmed throughout the 1997-98 Strategic Quality Plan, specifically in the first core function of the mission statement and the first organizational value. IACH's mission is to serve the military beneficiary population by providing three core functions: maintaining healthy soldiers for deployment, deploying a trained and capable medical force, and managing the health care of active duty family members, retirees, and the extended military family. The Strategic Plan also states that the first and most important organizational value is readiness. IACH believes in providing dependable, appropriate medical care and ensuring that military service members are medically prepared to serve in the Armed Forces (Rumph, Goforth 1996).

The MEDDAC commander continually receives questions from the leadership of the 1st Infantry Division, the 1st Armored Division, the 937th Engineer Group, and other Forces Command (FORSCOM) units at Fort Riley concerning the status of soldiers participating in the PDES. The FORSCOM commanders strive for the maximum readiness level in accordance with Army Regulation 220-1, Unit Status Reporting. The personnel section of the monthly Unit Status Report requires commanders to account for soldiers who are not deployable and cannot perform their military occupational specialty or area of concentration. Military service members undergoing disability evaluations are non-deployable; therefore, they degrade the personnel readiness status of the unit. Avoidable delays in processing soldiers through the disability system forces commanders to prolong their degraded personnel readiness rating and to continue performing their unit mission with fewer fully capable human resources. The commanders' increased concern for personnel readiness and the quality of patient care demonstrate the compelling need for this study.

The MEDDAC Commander and the Chief of the Patient Administration Division (PAD) are also interested in developing a more efficient method of processing soldiers through the disability Evaluation System because IACH actively supports continuous quality improvement and utilization management. IACH's Physical Evaluation Board Liaison Officer values the opportunity to improve the services his office provides and continually looks for ways to decrease processing days at the local level. The MEDDAC Commander subscribes to the published Department of Defense utilization management goals: "First, it is to ensure that all medically necessary care is delivered, for the clinically appropriate duration, at the most clinically appropriate level; and second, it is used to contain health care cost" (CG MEDCOM Bulletin 1-

97). IACH's command staff believes that one the best ways to improve performance and meet the DOD goal is to conduct this analysis and implement performance improvement initiatives.

The implementation of the Physical Disability Evaluation System results in a significant financial expense to the government and to the MEDDAC. Capturing the exact cost of Fort Riley's Physical Disability Evaluation System is an arduous task. However, the MEDDAC's Resource Management Division tracks and maintains financial and hourly workload information (full time equivalent) on soldiers involved in PDES assigned to the hospital's medical holding unit (MEDHOLD). The Fiscal Year 1996 (FY 96) cost for soldiers assigned to IACH's MEDHOLD was $317,470 according to information obtained from the Capitation Budget Summary Report on the Military Expense and Performance Reporting System (MEPRS). That cost is substantial because IACH's total operating budget for FY 97 is $2.3 million less than the FY 96 budget, even though neither the beneficiary population nor the MEDDAC workload is expected to decrease within the next 12 months. The Deputy Commander for Administration and the Chief of the Resource Management Division are consistently looking for ways to improve efficiency and reduce expenditures. A detailed analysis of the physical disability evaluation processing at IACH will provide information regarding which factors to target for financial optimization and performance improvement.

Statement of the Problem

The MEDDAC's senior leadership is extremely concerned about maintaining healthy soldiers for deployment and supporting the Army Medical Department's (AMEDD) mission, "To conserve the fighting strength" (MEDCOM homepage 1996). The decreasing military force

structure and FY 97 operating budget requires commanders to maximize the use of available resources and minimize administration processing delays. The commanders of Fort Riley's combat arms units, commonly referred to as line commanders, are concerned about maintaining healthy soldiers who are trained and ready to conduct their wartime mission. Soldiers who incur medical problems which significantly restrict or inhibit their duty performance reduce a military commander's ability to complete his/her assigned mission. These soldiers are sent to medical treatment facilities for thorough medical evaluation and treatment. IACH's senior leadership and the line commanders want to identify the type of service members who are most likely to participate in the PDES so active preventive medicine measures can be initiated to preclude medical disability. The commanders want to know what influences the length of time soldiers are involved in the PDES and how that time can be reduced.

Commanders must perform their mission with a specific number of assigned personnel, based on a structured manning roster which designates the number of military personnel authorized in each unit and the specific military occupational position they will fill. The manning and equipment roster for deployable U.S. Army combat arms, combat support, and combat service support units is called the Table of Organization and Equipment (TOE). The manning roster for non-deployable units is called the Table of Distributions and Allowances (TDA). Every military unit produces a standardized Unit Status Report (USR), which incorporates personnel readiness based on the unit's TOE or TDA. Line commanders want their soldiers processed through the physical disability system in an expedient and effective manner; they can not request replacements for disabled soldiers, and they receive a downgraded rating on their monthly Unit Status Report, which reflects the unit's ability to perform it's mission. The USR is used as a

performance evaluation tool for unit commander's; therefore, commanders have a strong incentive to keep trained personnel on-hand in order to effectively complete the assigned mission.

Commanders want physically capable, non-medically restricted soldiers at all times because each soldier has specific mission-related duties which are required for the unit to function properly. Readily available, non-medically restricted soldiers who can train and function in their military occupational specialty provide the foundation for improved military readiness. Since Army regulations require soldiers with significant physical impairments to participate in the PDES, and these regulations do not allow replacements for soldiers in the PDES, it is imperative that the PDES functions in the most efficient manner possible.

The Regional Physical Evaluation Board (PEB), which oversees the PDES at Fort Riley, is located in Fort Lewis, Washington. The PEB manages a regional database used to evaluate the performance of IACH's Medical Evaluation Board (MEB) process. This regional database provides a consolidated list of the PDES processing days for all the medial treatment facilities and medical centers in the north central and northwestern United States. The regional database does not provide sufficient information to identify the factors contributing to delays in the disability processing system at IACH.

Individuals are the primary force in organizations, and an organization's success or failure is directly related to the development and management of the people within the organization (O'Connor and Shewchuk 1995, Levey 1992). The $2.3 million shortfall in funding for the FY 97 budget necessitates increased medical and administrative staff efficiency for the MEDDAC to remain within budget. The MEDDAC senior leadership must empower the staff to modify their practice patterns to "do more with less." The medical staff are directly involved with the

physical disability processing, including writing profiles and participating on the local medical evaluation boards. Improving the design of the MEDDAC's medical boarding process and identifying the steps in the process which are most time consuming will provide the medical and administrative staff with specific areas to focus their efforts. "The key to modifying their practice patterns will be to create a neutral, nonjudgmental context in which they can discover for themselves that they are outliers, and in which they can make changes without having to admit to anyone that anything is wrong" (Nathanson 1994).

Literature Review

The Army is replete with history regarding the treatment and care of disabled soldiers. Line commanders have always been concerned with maintaining a deployable, mission-ready force, which includes minimizing the number of medically disabled soldiers assigned to an active unit. The medical system has been inappropriately used as an outprocessing center for soldiers unable to perform their wartime duty. The Official History of World War II stated it well:

> "An organization commander is primarily interested in a unit which has as few substandard men as possible. From a commander's point of view, the simplest way of disposing of substandard men during World War II was often through medical channels. In many instances the proper disposition was an administrative separation rather than one for disability, but, because of command pressure, the later channel was utilized" (Heaton 1967).

This attitude is still very common. Indeed, it may be more prevalent today due to the increasingly frequent deployment of combat units.

During the Vietnam conflict, as the number of hospitals increased and the patient load became heavier, the Surgeon General and other agencies reviewed personnel procedures to speed

the disposition of soldiers from military hospitals. One procedural change allowed commanders with housing capacities of 5,000 or more to grant disability discharges. The change in procedures "simplified the disposition of such patients and in at least one hospital reduced the average period of their stay by almost two-thirds, from fifty-eight to twenty-one days" (Neel 1973).

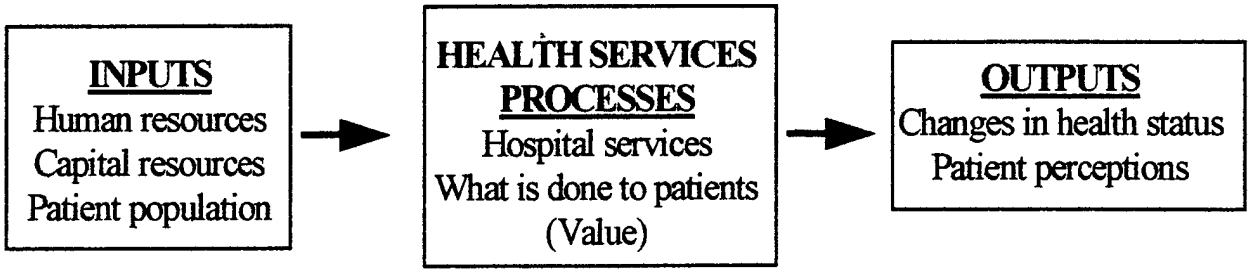
Presently, concern for returning disabled workers back on the job is high within the civilian community. During a ten year period, Steelcase Incorporated reduced time lost due to surgery for back injuries from nine to twelve months in 1982, to six to eight weeks in 1992. Overall, Steelcase lowered their average cost per claim from $1,552 in 1983, to $1,213 in 1992. Compare this figure with the national average of $7,500 per claim or the fact that California's average cost per claim has increased from $6,000 in 1980 to nearly $20,000 in 1992 (Laabs 1993). Include the fact that up to 30 percent of hospital admissions for worker's compensation cases may be medically unnecessary and industry has considerable savings to be realized through effectively controlling worker's compensation programs (Zilg 1992).

One author has even suggested that the nation's disability system be modeled after the program run by the Federal Government for government employees (Berkowitz 1991). While this program may be plausible and eventually save money for the civilian companies, it would not be appropriate for the unique environment of the military.

Both military and civilian leadership are concerned with managing the quality of their physical disability systems. Management and the consumer have become more concerned about the measurement and surveillance of quality, which led to the development of Total Quality Management (TQM) and Continuous Quality Improvement (CQI) programs. The concept of quality can vary depending on who defines the term. Joyce A. Lanning and Stephen J. O'Connor developed a systems model for conceptualizing quality health care which includes inputs,

processes, and outputs (Levey 1992). A simplified model is shown in Figure 1.

Figure 1. A systems model used for conceptualizing quality health care.



In the systems model, the efficient use of resources and the appropriateness/service suitability with respect to a patient's specific health requirements are used as system linkages from inputs to health service processes. Technical effectiveness and the patient's perception of effectiveness links the processes with the stated outputs. Lanning and O'Connor believe incentives that reward both efficiency and effectiveness are necessary for a proper quality control system to exist.

The Army may realize significant savings by altering its own disability system. By effectively controlling a soldier's time lost due to assignment in the physical disability system, resources can be freed for use elsewhere. These savings are especially pertinent given the present budget and troop reductions.

Purpose of the Study

The purpose of this retrospective study is two fold; to determine the significant demographic, choice-related, and systemic attributes which contribute to the total number of days soldiers participate in the Physical Disability Evaluation System at Irwin Army Community Hospital and to

recommend methods to decrease this PDES processing time. The theoretical framework depicting the hypothesis used in this study is shown in Figure 2.

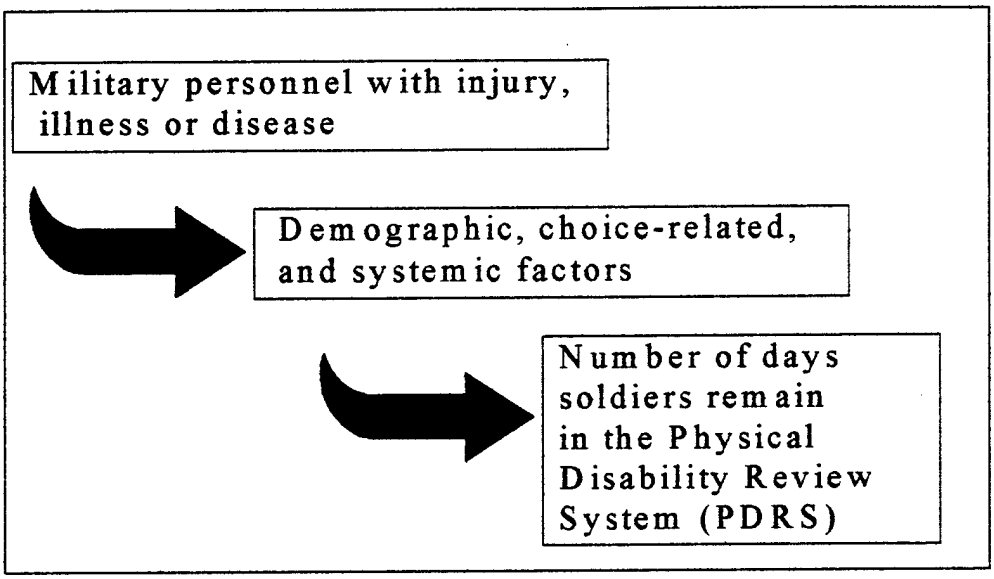


Figure 2. The theoretical framework used in developing the hypothesis for this study

The theoretical framework was used to develop the alternate and null hypothesis. The alternate hypothesis used in this study states that the number of days the PDES takes to process and adjudicate Fort Riley soldiers who do not meet the required medical standards (AR 40-501, 1995) is a function of the service member's demographic attributes, personal choices concerning administrative appeal, and the systemic efficiency medical treatment facility. Simply stated, the number of days a soldier spends in the PDES is a function of demographic, personal, and systemic factors. The null hypothesis, also known as the no difference model, states that there is no relationship between the number of days Fort Riley soldiers spend in the PDES and the demographic, choice-related, and systemic variables used in the multiple linear regression equation. The Alternate and Null hypothesis are listed in Table 2.

Table 2. Summary of the alternate and null hypothesis

Alternate Hypothesis (H_a): The total number of PDES processing days can be predicted by demographic attributes, personal choices, and/or the systemic process.
Null Hypothesis (H_o): There is no difference in the variables which affect PDES processing and adjudication times.
$H_a: Y = f(x_1, x_2, x_3, \ldots x_n)$ $\qquad$ $H_o: Y \neq f(x_1, x_2, x_3, \ldots x_n)$

The functional relationship is defined using the formula Y= f(x), where "Y" is the dependent variable and "x" is the independent variable. In this study, the dependent variable is operationally defined as the number of days it takes for the Physical Disability Evaluation System to process and adjudicate military service members who are attached or assigned to a military unit at Fort Riley, Kansas. The dependent variable, total number of processing days, is calculated by subtracting the effective date on the soldier's disposition orders from the date the narrative summary was drafted. Multiple independent variables are used to test the hypothesis. Independent variables which focus on systemic attributes are included to assist unit commanders, MEDDAC management, and empowered employees with performance improvement initiatives. The systemic variables can be monitored and influenced by the medical and administrative staff at the local medical treatment facility, Irwin Army Community Hospital. The total number of PDES processing days is based on the number of days it takes to complete the administrative actions at three processing centers; IACH's Medical Evaluation Board, the North Central/Northwest Regional Physical Evaluation Board, and United States Army Physical Disability Agency. The quantitative and qualitative independent variables are categorized and listed in Table 3.

TABLE 3. Independent variables used in testing the working hypothesis.

DEMOGRAPHIC	PERSONAL CHOICE	SYSTEMIC
age, award percentage, DS/DS veteran, educational level, retirement eligibility, gender, length of service, marital status, military rank, number of dependents, race, unit assignment type	request for: Congressional involvement, formal Physical Evaluation Board	admitting service, MTF where medical care was obtained, MEDHOLD status

The objective is to review the Physical Evaluation Board Liaison Officer's (PEBLO) standard operating procedures, identify the participants in Fort Riley's Physical Disability Evaluation System, review the documentation concerning the progress of each soldier, document the length of time soldiers spend during each stage of the process, determine the variables which significantly affect the PDES processing times, and recommend actions which Irwin Army Community Hospital leadership and medical staff can take to reduce the Medical Evaluation Board processing times.

CHAPTER 2

METHOD AND PROCEDURES

Identification of Persons, Objects or Events

The subjects of this analysis are the active duty military personnel assigned or attached to the various military units based on or near Fort Riley, Kansas, during the period of January 1996 through December 1996. The majority of the estimated 10,500 active duty soldiers in the research population are assigned or attached to elements of the 1st Infantry Division, the 1st Armored Division, the 937th Engineer Group, or the U.S. Army Medical Activity (MEDDAC). The research sample consists of 139 military service members required to undergo processing and adjudication in the Physical Disability Evaluation System because they did not meet required medical, physical or mental standards identified in Army regulations. The graphical representation of the research persons, objects, or events (POE) is shown in Figure 3.

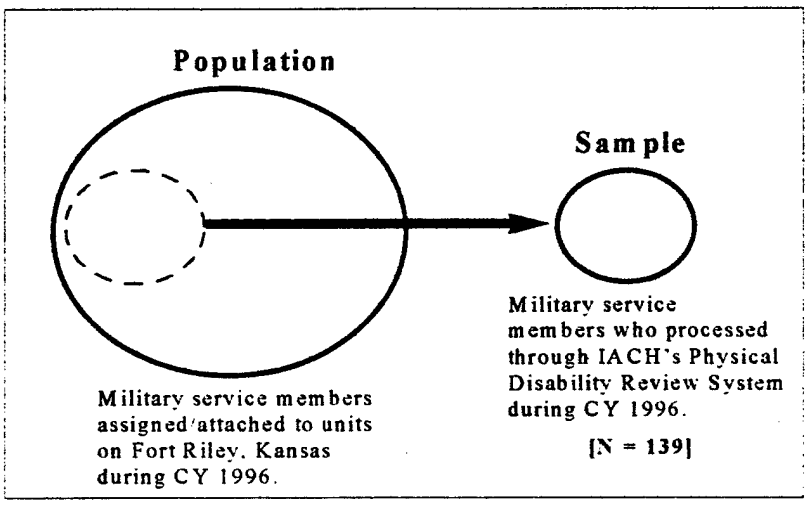


Figure 3. Graphical representation of research population and sample

Summary of the Physical Disability Evaluation System

The PDES is a combination of three processing centers which review and adjudicate the records of active duty and reserve soldiers who are diagnosed with one or more medical, physical or mental conditions which may render a soldier unable to perform the duties of his or her office, grade, rank, or rating in such a way as to reasonably fulfill the purpose of his or her employment on active duty (AR 635-40 1990). The three processing centers or stages in the PDES are the Medical Evaluation Board (MEB), the Physical Evaluation Board (PEB), and the final review by the United States Army Physical Disability Agency, known as the USAPDA (AR 40-3, 1985; AR 40-501, 1995; AR 600-60, 1985; AR 635-40, 1990). This study encompasses each of these processing stages and focuses on the total number of days a service member is involved with the PDES. A summary of the PDES process is diagramed in Figure 4.

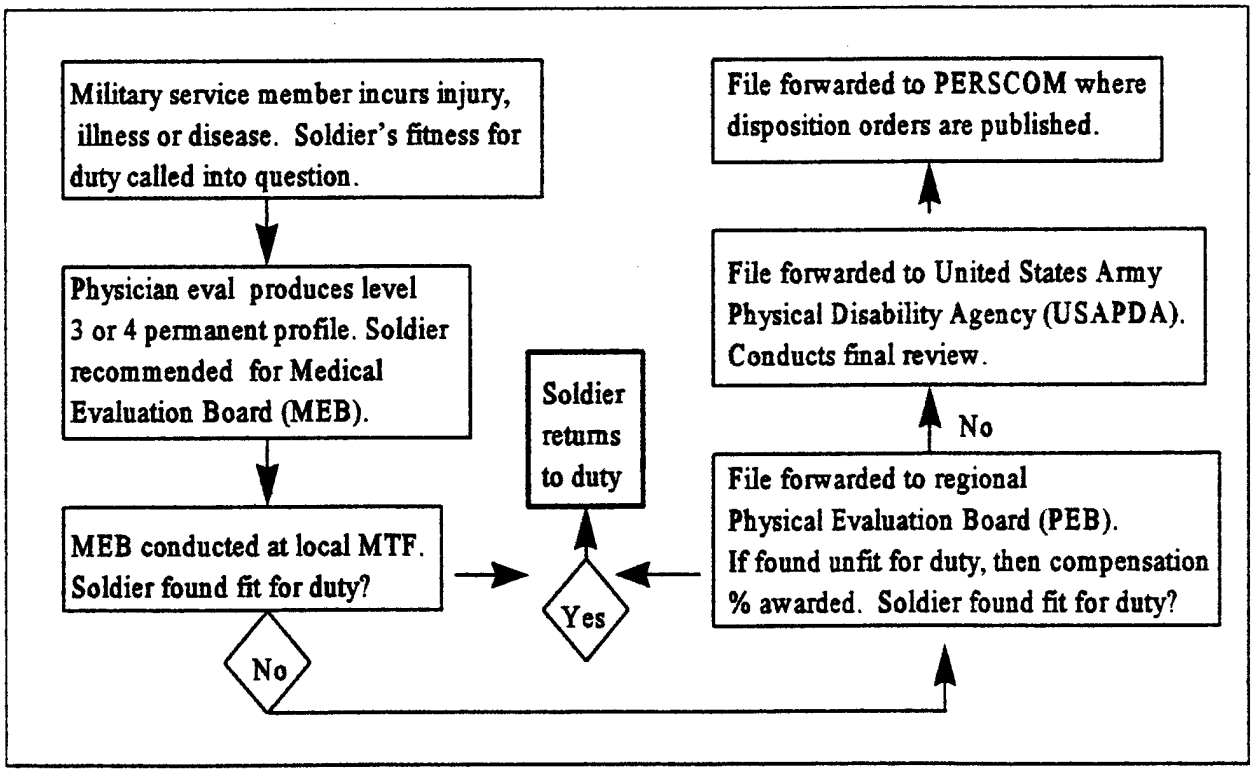


Figure 4. Flow Chart of the Physical Disability Evaluation System Process

The three stages of the PDES are recorded on various documents stored in the PEBLO's office. Information for this research project was obtained by reviewing every PDES case processed at Irwin Army Community Hospital in CY 1996. The sample includes active duty service members associated with IACH's medical holding unit and active duty service members who did not meet the fitness standards required for continued military service. Soldiers in the research sample were evaluated by physicians according to the six factors in the physical profile serial system which are designated "P-U-L-H-E-S" (AR 40-501 1995). The physicians evaluated medical, physical, and mental capabilities and determined these soldiers had one or more medical conditions or physical defects which required significant duty limitations (AR 40-501, AR 635-40 1990). The physicians prepared permanent level three or level four physical profiles using Department of the Army Form 3349 as defined by AR 40-501, Chapter 7, Medical Fitness Standards. The soldiers were recommended for a Medical Evaluation Board and told to meet with the Physical Evaluation Board Liaison Officer for a briefing on the Physical Disability Evaluation System.

The Physical Evaluation Board Liaison Officer introduces and explains the PDES to the soldiers referred to him by military physicians. Irwin Army Community Hospital's PEBLO maintains historical files of all the soldiers who participate in the PDES. The PEBLO tracks the disability process and ensures the following forms are completed by the appropriate officials at IACH: DA Form 3947 (Medical Evaluation Board Proceedings), SF 502 (Medical Record-Narrative Summary Clinical Survey), DA Form 3349 (Physical Profile), DA Form 2173 (Statement of Medical Examination and Duty Status), and DD From 261 (Report of Investigation- Line of Duty and Misconduct Status) (AR 635-40 1990). The PEBLO counsels

soldiers about the their options in the PDES, and assists the hospital staff with completing the forms required for the Medical Evaluation Board.

The MEB is completed at the local Medical Treatment Facility which, for this study, is Irwin Army Community Hospital. The military service members who were recommended for the MEB, but did not require twenty-four hour medical care, continued to obtain necessary care using the MTF outpatient services. All active duty Army inpatients were either attached or assigned to IACH's medical holding unit. "The decision as to whether the member was assigned to the medical holding unit of the MTF will be based on whether the person may render productive service to the parent unit while undergoing disability processing" (AR 40-3 1985). IACH's Commander and Deputy Commander for Clinical Services approve who is assigned to the medical holding unit based on their medical experience in discerning who may render productive service. Whether the service members were involved with MEDHOLD or processed on an outpatient basis from their parent organization, they were involved with IACH's Medical Evaluation Board, the initial stage of the PDES.

Irwin Army Community Hospital's PEBLO forwards the Medical Evaluation Board and all supporting documentation to the regional Physical Evaluation Board located at Fort Lewis, Washington. The PEB's first and most important determination is whether the soldier is physically fit or unfit to perform the duties of the soldier's office, grade, rank, or rating (AR 635-40 1990). The PEB also decides if the soldier is entitled to benefits under Chapter 61 of 10 United States Code and what percentage rating should be awarded for each unfitting compensable disability (10 U.S.C., AR 635-40, 1990; DODI 1332.38, 1996). Their decision is based on a preponderance of the evidence which relates the nature and degree of physical

disability of the soldier to the duties that the soldier may be expected to perform in their military occupational specialty.

Research Ethics

The ethical rights of the subjects were protected by reporting the data anonymously. The PEBLO or associated personnel from IACH's Patient Administration Division reviewed the PDES records and provided the raw data requested by the administrative resident. The subject's personal information (name, social security number, address) was not collected by the researcher. The major source of data was found in the PEBLO's historical files which are stored at IACH. Demographic, personal choices and various processing dates were obtained directly from the PEBLO; therefore, patient confidentiality was not compromised.

Validity and Reliability of the Study

Data obtained from the PEBLO is internally valid and reliable because the method of information collection and documentation is nationally standardized in accordance with Army regulations. The standardized data collection method required in the Army's Physical Disability Evaluation System will control for extraneous variables. Information pertaining to the personal and environmental attributes of the service member is obtained directly from the individual by the PEBLO and verified through the Department of Defense approved Composite Health Care System (CHCS), an automated health record database. Both the PEBLO and the CHCS operators are highly trained personnel who are required to follow strict compliance standards. The data to be obtained for this analysis is retrievable from PDES records. Data from these

records is also used in financial comparisons and utilization management analysis at local and regional levels. Using the data provided by the PEBLO is appropriate for eliciting the information needed because he is highly trained and intimately familiar with the medical evaluation board process at IACH. The data is also considered reliable because another researcher can use the same protocol and obtain the same results.

Statistical Methods

A multiple linear determinant regression analysis is used to test the hypothesis that each independent variable specified in the model makes a unique contribution to explaining the variance of the dependent variable, the number of days a military service member is involved in the Physical Disability Evaluation System. The multiple regression analysis involves the comparison of restricted and full regression models which estimate the change in predictive efficiency (R^2) resulting when specific independent variables are removed from the regression equation. The change in R^2 is interpreted as an unambiguous estimate of the variance in the dependent variable uniquely attributable to each predictor, as compared to the remaining predictors variables in the model (Brooke, Hudak and Finstuen 1994). Control variables are used to test the effects of each independent variable while controlling for and holding constant the effects due to all other predictor variables. The F ratio is used as the test of predictive efficiency (Cooper and Emory 1995). The alpha probability used to evaluate the results was .05, meaning the probability of obtaining the computed results by chance alone will be less than 5%. The Statistical Program for the Social Sciences, SPSS, is used to make the calculations and generate a correlation matrix for the analysis.

Descriptive statistics and measures of central tendency were used to examine the data from the demographic, choice-related and systemic variables. The independent variables were analyzed to determine their affect on the length of time (number of days) it takes a service member to complete the PDES process. Using SPSS, a correlation matrix was created to determine Pearson's Product moment correlation coefficient between the dependent variable, the total number of days in the PDES, and the independent/predictor variables. The full model multiple linear regression equation used in the data analysis was as follows:

$$\mathbf{Y = a_o u + b_1 X_1 + b_2 X_2 + \ldots + b_n X_n}$$ where Y: number of days in the PDES
$a_o u$: regression constant
X_n: value of predictor variables
b_n: least squares regression coefficient.

Seventeen linear independent predictor variables were used in the regression equation. They include rank, gender, age, marital status, educational level, number of dependents, unit of assignment, DS/DS veteran, MEDHOLD status, location of medical care, admitting service, length of service, compensable award percentage, race, Congressional intervention, request for a formal board, and retirement eligibility. The operational definitions of the predictor variables used in the multiple linear regression analysis are listed in Table 4.

TABLE 4. Operational definitions of the independent predictor variables used in the multiple linear regression analysis

Variable Name	Variable Description	Coding Definition
GENDER	Subjects gender	1 = Male, 0 = Female
AGE	Age (years) of soldier at the time narrative summary was drafted	1 = n<20, 2 = 21-25, 3 = 26-30, 4 = 31-35, 5 = 36-40, 6 = 41-45, 7 = 46-50

Variable Name	Variable Description	Coding Definition
RANK	Service member's rank/grade category; Junior Grade Enlisted soldier (E1-E4), Mid Grade Non-Commissioned Officer (E5-E6), Senior Grade Non-Commissioned Officer (E7-E9), and Warrant or Commissioned Officer (W01-CW5 or 01-06)	1= E1-E4 2= E5-E6 3= E7-E8 4= WO1-CW5 or 01-06
M_STATUS	Marital Status	1 = Married, 0 = otherwise
ED_LVL	Subjects Educational Level at the time the narrative summary was drafted	1 = High school graduate / GED 2 = Some college 3 = Bachelor's or greater
NUM_DEP	Number of Dependents at the time the narrative summary was drafted	1 = Zero dependents 2 = One dependent 3 = Two dependents 4 = Three or more dependents
UNIT_TYP	Type of unit soldier assigned to at the time of MEB recommendation	1 = Combat Arms Unit 0 = Combat Spt/Combat Svc Spt
DS_DS	Desert Storm/Desert Shield Veteran	1 = yes, 0 = otherwise
MEDHOLD	Assigned or attached to a Medical Holding Unit at the MTF/MEDCEN	1 = yes, 0 = otherwise
MTF_CARE	All medical care was provided at Irwin Army Community Hospital	1 = yes, 0 = otherwise
AD_SVC	Clinic or Service which initiated the medical profile and started the MEB process.	1 = Orthopedics 2 = Internal Medicine 3 = Primary Care/TMC 4 = Psychiatry/CMHS 5 = Neurology 6 = Otherwise
LGTH_SVC	Total number of years the soldier served in the military	1 = 1-5, 2 = 6-10, 3 = 11-15, 4 = 16-19, 5 = 20-25, 6 = 26-30
FORM_BRD	Service member requested Formal PEB	1 = Yes, 0 = Otherwise
ELIG_RET	Soldier has 20 or more years of service	1 = Yes, 0 = Otherwise

Variable Name	Variable Description	Coding Definition
COMP_AWD	Ultimate disability compensation award in percent of soldiers pay	1 = 0%, Fit For Duty/Return to duty or Separate without benefits 2 = 10-20% Compensation 3 = 30-40% Compensation 4 = 50-100% Compensation
RACE	Service member's race	1 = African American 2 = Caucasian 3 = Otherwise
CONGRESS	Service member requested Presidential, House of Representatives or Senate intervention	1= Yes 0 = Otherwise

The test of predictive efficiency is used to evaluate the results of the multiple linear regression analysis. The predictive efficiency, or coefficient of determination (R^2), for the full model determines the percentage of variance attributed to the net of all the independent predictor variables. The restricted model is employed to test for the significance of each predictor variable. The predictor variables are evaluated by removing one variable from the full model multiple linear equation and forming a new equation known as a restricted multiple linear regression equation. Therefore, the difference between the predictive efficiency for the full model and the predictive efficiency for the restricted model is the variance accounted for by the missing predictor, holding constant all other predictor variable effects (Pedhazur 1982). The graphical representation of this procedure is shown on the following page in Figure 5.

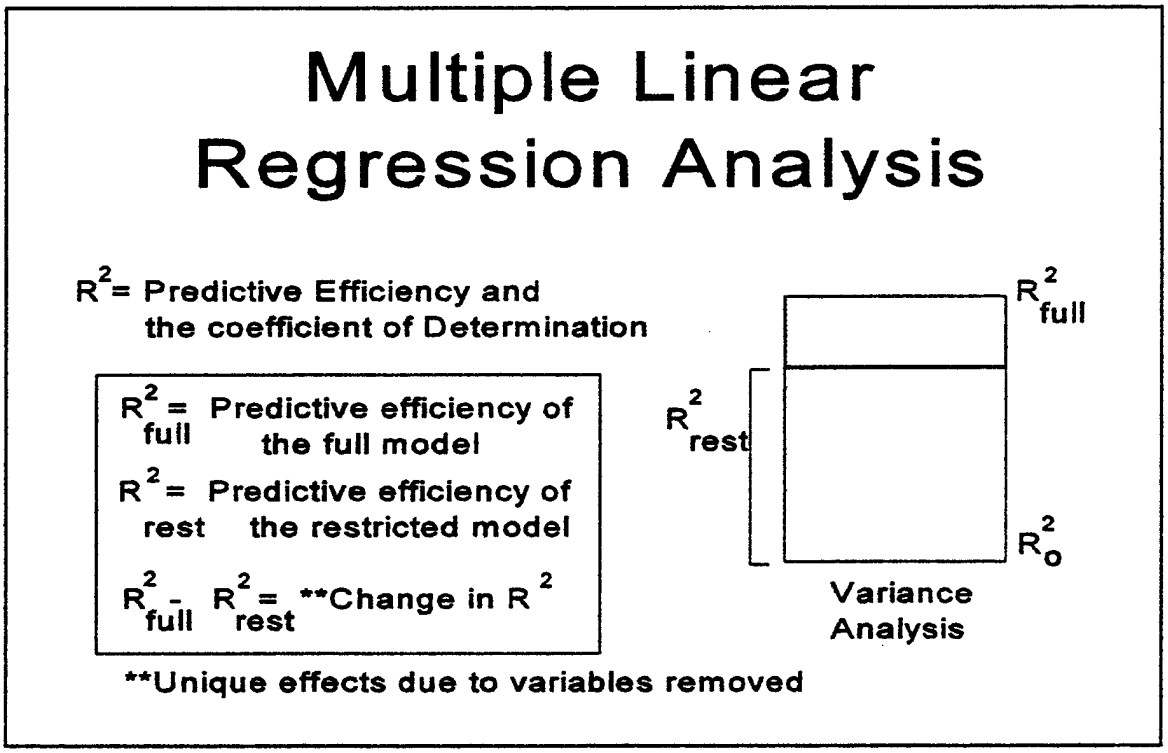


Figure 5. Graphical description of hierarchial multiple linear regression used to determine the variance uniquely attributable to each predictor.

CHAPTER 3

RESULTS

This retrospective study of 139 records of soldiers who completed the Physical Disability Evaluation System at Irwin Army Community Hospital found one independent variable which was a statistically significant predictor of the dependent variable. The independent variable, FORM_PEB, is a binary predictor which identifies a service member who pursued a formal or informal Physical Evaluation Board after he/she reviewed the initial PEB results. The dependent variable, total number of days spent in the PDES, yielded a mean of 132 days, a standard deviation of 69 days and a range from 11 to 384 days. The distribution of the dependent variable is slightly left-skewed, which signifies the mean is lower (to the left of) than the median. A graphical display of this distribution is shown in the Dependent Variable Histogram shown in Figure 6. The data reflects a normal distribution with the exception of the minimal outliers on the right side of the graph. Only eight cases exceeded 280 days processing time which accounts for less than 6% of the sample size.

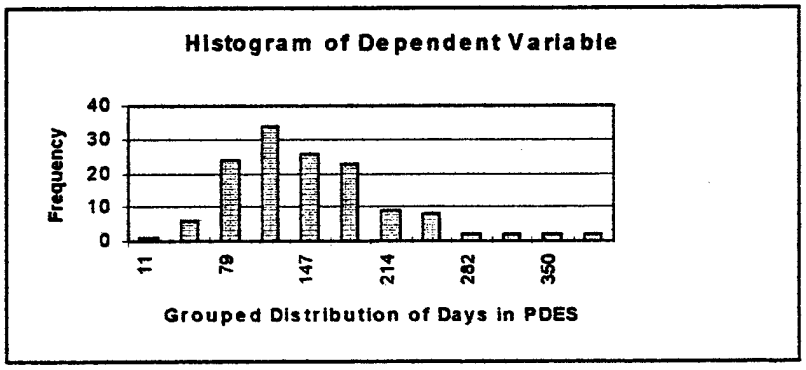


Figure 6. Graphical representation of the dependent variable frequency distribution.

Descriptive Statistics

The descriptive statistics (frequencies and central tendencies) for the seventeen linear independent predictor variables used in initial multiple linear regression equation are shown in Appendix A. In the sample of 139 records, the majority of the service members participating in the PDES were male (86.3%), married (72.7%), caucasian (64.7%), between 21-30 years old (63.3%), junior grade non-commissioned officers (56.8%), admitted by orthopedic providers (61.2%) with all medical care delivered at IACH (76.3%). Total PDES processing days were subdivided into three stages; first the MEB stage, then the PEB stage, and finally the USAPDA stage. The total number of PDES processing days were subdivided into time periods in order to identify the duration of the specific administrative processes being accomplished. The means for MEB, PEB, and USAPDA processing days are 73.28, 35.36, and 23.24 days respectively. The descriptive statistics for the variable describing total PDES processing days and the three specific processing stages are delineated in Appendix B. Descriptive statistics summarizing the dependent variable and the significant independent variable used in the final regression analysis are shown in Table 5.

Table 5. Descriptive statistics for the relevant dependent and independent variables

Variable	Mean	S. D.	Min	Max
Total PDES days	131.89	69.16	11	384
FORM_PEB	.17	.37	0	1

Inferential Statistics

Using SPSS, a two-tailed correlation matrix was created to determine the Pearson's Product moment correlation coefficient between the dependent variable, the total number of

PDES processing days, and the independent predictor variables. Analysis of the correlation coefficients and the corresponding probably (p value) reveals the degree of linear relationship between two variables. The Pearson correlation coefficient ranges between -1.00 and 1.00 (Spatz 1993). The value of one signifies a perfect correlation; therefore values near one with an alpha less than .05 indicate significant linear relationships. Analysis of the correlation matrix revealed significant relationships between total days and a request for formal PEB, between age and grade, between age and marriage, and admitting service and medical care from IACH staff, and unit type and gender. Each of these variables had a p value of less than five percent ($\alpha < .05$). This p value indicates a relationship; however, it does not indicate how strong the relationship is or what kind on relationship is present (Conley 1996).

A multivariate stepwise backward regression analysis is used to test the working hypothesis. Stepwise backward elimination analysis is used to measure the significance of each partial regression coefficient (Norusis 1996). This backward linear regression is used to remove the variables that had a critical probability level of less than 5% ($\alpha < .05$). A restricted multiple linear regression model is employed to test for the significance and compute the variance accounted for by each of the 17 independent predictor variables.

All independent variables are included in the full regression equation. The coefficient of determination for the full model is .26777, meaning the 17 linear independent predictor variables accounted for 27% of the variance in total number of PDES processing days. The results also indicate a multiple R of .51746 which means the predictive efficiency of the regression equation is 52%. The full regression model is significant, as shown by the F ratio of 2.60284 (df=138, $p<.01$). The test of predictive efficiency is used to evaluate the results of the multiple linear

regression analysis. The summary of the full regression equation is listed in Table 6.

Table 6. SPSS results from the full multiple regression equation

Multiple R	.51746		
R Square	.26777		
Adjusted R Square	.16489		
Standard Error	63.20386		
Analysis of Variance			
	DF	Sum of Squares	Mean Square
Regression	17	176760.02588	10397.64858
Residual	121	483362.13239	3994.72837
F = 2.60284		Signif F = .0013	

At each step in the process, the predictor variable that changes the coefficient of determination (R^2) the least is removed, provided the change is small enough that it does not reject the null hypothesis where the true change is zero (Norusis 1996, Coppola 1997). Incremental removal was accomplished using $\alpha = .05$ specified error and a removal level of 0.10. The predictor variables removed from the regression equation have an $\alpha > .05$, signified by Sig T. Independent variables are removed in sequence from highest Sig T to lowest. The removal process is complete, meaning variables are no longer removed from the equation, when the removal of any additional variables in the model results in a significant decrease in R^2. The inferential statistics for the final regression equation and the variables removed from the application of backward elimination process are shown in Table 7.

Table 7. SPSS results from the final regression equation

Multiple R	.46850
R Square	.21949
Adjusted R Square	.21379
Standard Error	61.32553

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	1	144889.68863	144889.68863
Residual	137	515232.46964	3760.82095

F = 38.52608 Signif F = .0000

Variables in the Equation

Variable	B	SE B	Beta	T	Sig T
FORM_PEB	86.882684	13.997672	.468497	6.207	.0000
(Constant)	117.508621	5.693933		20.638	.0000

Variables not in the Equation

Variable	Beta In	Partial	Min Toler	T	Sig T
ADM_SVC	-.014582	-.016493	.998464	-.192	.8477
AGE	.041832	.046604	.968757	.544	.5873
COMP_AWD	.053611	.060682	.999989	.709	.4796
CONGRESS	-.053821	-.060877	.998563	-.711	.4781
DS_DS	.050307	.056803	.995093	.664	.5081
ED_LVL	.019842	.022418	.996329	.262	.7941
ELIG_RET	-.095011	-.107461	.998467	-1.260	.2096
GENDER	.043465	.049095	.995844	.573	.5674
GRADE	.030675	.034596	.992811	.404	.6871
LGTH_SVC	-.002309	-.002579	.973952	-.030	.9760
M_STATUS	-.048934	-.055302	.996871	-.646	.5194
MEDHOLD	-.087259	-.097555	.975560	-1.143	.2550
MTF_CARE	-.039694	-.043479	.936470	-.508	.6126
NUM_DEP	.002377	.002676	.988979	.031	.9752
RACE	.054060	.061099	.997000	.714	.4765
UNIT_TYP	.112395	.127140	.998732	1.495	.1373

The final regression equation is computed using the only independent predictor variable with a Significant T less than .05, FORM_PEB. The final multiple regression equation is highly predictive and significant ($R^2 = .21949$, $p < .0001$) because it accounts for 22 percent of the

variance in the dependent variable with a predictive efficiency of 47 percent. The analysis indicates that requests/completion of a formal Physical Evaluation Board is the most significant predictor of the total number of days Fort Riley soldiers spend in the PDES. The variance uniquely explained is the difference between the predictive efficiency of the full model and the restricted model, holding constant all other predictor variables. A summary of the inferential statistics for this analysis are listed in Table 8.

Table 8. Inferential statistics from the linear regression analysis

Effect Tested	R2 Full Model	R2 Restricted Model	Variance Uniquely Explained	df1	df2	F	Sig F
Formal board	.26777	.21949	.04828	1	137	38.52608	.0000

The final multivariate regression equation is solved by using the means of the significant independent predictor variable (FORM_PEB), the calculated regression constant ($a_ou = 117.509$), and the least squares regression coefficient (b_n) for the predictor variable. The solved equation is listed in Figure 7. The solved equation demonstrates the similarity between the actual sample mean equal to 131.885 days and the predicated mean from equation equal to 131.844 days. This demonstrates the validity of the regression model (Guerin 1996, Conley 1996).

$$Y = a_ou + b_1X_1 + b_2X_2 + \ldots + b_nX_n$$

where Y: number of days in the PDES
a_ou: regression constant
X_n: value of predictor variables
b_n: least squares regression coefficient.

$$Y = 117.509 + (86.883 \times FORM\_PEB) = 117.509 + (86.883 \times .165) = 131.84$$

Figure 7. Solved final multiple linear regression model

Hypothesis Evaluation

The multiple linear regression analysis indicated a statistically significant predictor variable; therefore, the null hypothesis is rejected in favor of the alternate hypothesis. The null hypothesis is rejected because the calculations reveal there is a difference in the variables which affect PDES processing and adjudication times. The restricted model contained one significantly significant variable, Form_PEB, which resulted in a predictive efficiency of .21949 with F ratio of 38.526 ($p < .001$). The alternate hypothesis is the total number of PDES processing days can be predicted by demographic attributes, personal choices, and/or the systemic process. The statistical results demonstrate the validity of the alternate hypothesis.

CHAPTER 4

DISCUSSION

The purpose of this study is to determine what variables predict the number of days a military service member is involved with the Physical Disability Evaluation System. Using the results from this study, IACH's senior leadership can target the significant variables associated with the most time spent in the PDES and develop programs or process action teams to decrease the PDES processing time and improve the performance and quality of the disability system at Fort Riley.

Interpretation of Results

The results identify a specific behavioral and systemic circumstance which results in the longer processing times. The descriptive statistics provide information on the type of person who is likely to use the PDES based on past trends and they identify the stages of the PDES administrative process which are the most timely for Fort Riley soldiers. IACH's clinical and administrative staff can target the MEB and PEB document preparation in order to reduce the need for a service member to request a formal PEB.

The stepwise multivariate regression analysis identifies the request for formal PEB as the variable which has a significant effect on the number of days soldiers spend in the PDES. The request for a formal PEB is the service member's individual decision based on his/her understanding of the results of the initial PEB. The formal PEB processing time includes the number of days it takes to draft a request for the formal PEB, conduct a formal review, complete the board results, and have the patient acknowledge acceptance of the formal PEB board results.

The overall number of PDES processing days can be reduced if the IACH staff target their performance improvement efforts in two areas: ensuring the MEB is thorough and complete before it's forwarded to the PEB, and reducing the number of days it takes to accomplish the MEB and request for a formal PEB. Coordination between the IACH's medical staff, the PEBLO, and the patients involved in the PDES is a key factor in implementing these performance improvement strategies.

Previous informal observation and historical trends led Irwin Army Community Hospital's PEBLO to believe that the number of days a service member participates in the PDES was a function of the following independent predictor variables: gender, marital status, education level, unit of assignment, MEDHOLD status, and admitting service (orthopedics). The descriptive statistics provide some validity to the PEBLO's presumption because many of his predictor variables have a high frequency of occurrence in Fort Riley's PDES participants. The CY 1996 records indicate that of the 139 soldiers who participated in the PDES, 86.3% are male, 72.7% are married, 77.7% graduated from high school, 60.4% come from combat arms units, and 61.2% are admitted by orthopedic physicians. However, the results from the multivariate regression analysis did not substantiate the PEBLO's hypothesis. The variables he suggested, as well as most of the demographic variables, are not statistically significant because they have a high probability of occurring due to chance. All the independent predictor variables the PEBLO mentioned have a p-value of greater than 5% ($p > .05$).

The final regression equation used in this analysis resulted in a predictive efficiency of 22 percent ($R^2 = .21949$) which is highly significant. Results which indicate a predictive efficiency of the full multiple linear regression model greater than 20%, ($R^2 > .20$) are considered valid

according to Harry M. Conley, former Director for Sampling Methodology, United States General Accounting Office (GAO), Washington D.C., and co-author of the GAO's book on sampling and statistics, Using Statistical Sampling-GAO/PEMD-10.1.6 (Coppola 1996). This means that an R^2 between 15-20 percent or nearly 1/6th of the variance in the population, is considered a success by the GAO. The higher the predictive efficiency, the more statistically valid the results. The regression equation used in this analysis exceeds the 20 percent variance; therefore, it is a valid tool for determining significant relationships with the number of days Fort Riley soldiers are involved with the PDES.

Although MEDHOLD personnel were not found to significantly effect the independent variable, lack of accountability and the desire of temporary managers to continue using the "free" administrative assistance from the MEDHOLD personnel may preclude the expedient processing of military patients participating the PDES system. The MEDDAC troop commander is responsible for assigning their work duties and job locations. Military service members who are assigned or attached to IACH's medical holding unit are generally directed to limited administrative duties throughout the hospital. Military service members in this situation are not closely monitored, and they provide a free source of labor to the personnel at their temporary work site. Close monitoring of patients assigned or attached to MEDHOLD by the departmental/clinical supervisors assigned where the service member is working may reduce the total number of days a soldier is involved in the Physical Disability Evaluation System.

The results of this analysis were compared to a similar study conducted by CPT Nicholas M. Coppola, a former Medical Holding Company Commander at Walter Reed Army Medical Center. His study involved a nationwide finite sample of active duty and other than active duty

Army soldiers (N = 8,301) whose continued military service was called into question through inadequate duty performance or medical impairment (Coppola 1996). Both research projects used similar dependent and independent variables making it possible to compare the results. CPT Coppola's descriptive statistics yielded a mean of 155 days, standard deviation of 114 days for the dependent variable. The mean for Fort Riley's research sample was 132 days, a difference of 23 days. This is most likely due to the age of soldiers and severity of aliments found in a nation wide population. Fort Riley has a relatively young military population with a minimum number of requests for formal Physical Evaluation Boards. Even so, both studies revealed that request for formal PEBs was a significant factor in predicting the number of days soldiers are involved with the PDES. The comparison also demonstrated the effect of differences in sample sizes. Fort Riley's sample size was only 1% of CPT Coppola's and the greater the sample size, the more likely the results reflect or describe the general population.

Medical Board Tracking Worksheet

The information revealed from this study was used to develop a medical board tracking worksheet/timeline which is now being used by the Physical Evaluation Board Liaison Officer, Patient Administration Division personnel, MEDDAC troop commander, and Deputy Commander for Clinical Services (DCCS). The PEBLO, PAD personnel, and MEDDAC troop commander can easily track the progress of each disabled soldier throughout the Medical Evaluation Board process at Irwin Army Community Hospital. The DCCS has the ability to analyze the responsiveness of his medical staff in completing the documentation necessary to execute Medical Evaluation Boards at IACH.

CHAPTER 5

RECOMMENDATIONS

The recommendations discussed in this chapter are designed to enhance the quality of the PDES process provided by the medical and administrative staff at Irwin Army Community Hospital and other medical treatment facilities who participate in the military disability evaluation system. "Many have concluded that, given the complexity and diversity of health care services, there is not one quintessential definition of quality, but rather several legitimate definitions" (Kovner 1995). Webster's Ninth New Collegiate Dictionary defines quality as "degree of excellence" or "superiority in kind." The researcher defines PDES quality based on the military readiness aspects of care, the interpersonal relationship between hospital staff and patient, and the national requirements stated in the Department of Defense Instruction Manual on Physical Disability Evaluation (US Department of Defense Instruction 1332.38 1996). Implementation of these recommendations may assist other researchers and military hospital executive staff in the conduct of performance improvement activities focused on the United States Army Physical Disability Evaluation System.

The researcher recommends that the Patient Administration Division staff, specifically the PEBLO, use a Medical Board Tracking Worksheet which describes the PDES process in a checklist format. An example of a Medical Board Tracking Worksheet for Irwin Army Community Hospital is shown in Appendix C. A consistent and structured PDES participant tracking system which is accessible to the hospital executive staff will enhance internal communication and participant accountability. The data from the Medical Board Tracking

Worksheet can be compiled in an automated database and used to provide the medical staff with comparative performance feedback. Excessive delays will be observable and appropriate action to expedite the disability process can be taken. The Deputy Commander for Clinical Services, which is usually the senior physician responsible for the Medical Evaluation Board at the local medical treatment facility, will be able to use the information compiled from the worksheet to monitor and improve the practice patterns of medical staff.

A second recommendation includes initiating and sustaining a medical staff and military leader education program on the Physical Disability Evaluation System. Military troop commanders as well as military medical staff must be trained and educated about the PDES. The military troop commanders need to know what is involved in the PDES process so they can effectively manage their personnel readiness posture. The hospital medical staff need training on the local Medical Evaluation Board process and on the guidelines regarding medical conditions and physical defects that are cause for referral into the disability evaluation system. The military medical staff are vital to increasing the efficiency of PDES processing; therefore, increased command emphasis on the PDES through a mandatory training and education program will certainly assist in reducing the average number of PDES processing days.

This project provides the leadership of IACH with a list of the significant predictors of increased length of stay in the PDES and a user-friendly physical disability processing worksheet. Appendices A and B also provide frequencies, percentages, and central tendencies pertaining to the attributes of the military soldiers who were involved with the PDES during 1996. IACH Patient Administration staff began using this information and the physical disability processing worksheet to focus their performance improvement efforts and decrease the number of days it

takes to process each soldier's Medical Evaluation Board. Their efforts were successful at reducing the number of PDES processing days as shown in Appendix D, Great Plains Regional Medical Command MTF Processing Times (Grisdale 1997). Irwin Army Community Hospital had the lowest average number of processing days in the military health care region. Further refinement and implementation of these recommendations and continued focus on improving the quality and efficiency of the PDES at IACH, will lead to increased military readiness, better patient care, and reduced expenditures.

REFERENCE LIST

Army Regulation 40-3, Medical Services. 1985. Medical, Dental, and Veterinary Care. Washington, DC: Government Printing Office

Army Regulation 40-501, Medical Services. 1995. Standards of Medical Fitness. Washington, DC:Government Printing Office

Army Regulation 220-1. 1994. Unit Status Reporting. Washington, DC: Government Printing Office

Army Regulation 635-40, Personnel Separations. 1990. *Physical Evaluation for Retention, Retirement, or Separation.* Washington, DC: Government Printing Office

Ash, Arlene. 1995. The design and analysis of hospital utilization studies. International Journal for Quality in Health Care 7(3): 245-252.

Berkowitz, M. 1991. U.S. worker rehabilitation in international perspective. Monthly Labor Review. 9: 15-21.

Boscarino, Joseph A. 1992. The public's perception of quality hospitals: Implications for patient surveys. Hospital and Health Services Administration 37(1): 275-297.

Brooke, P. P., R. P. Hudak and K. Finstuen. 1994. Product-line evaluation of graduate medical education program costs. Hospital and Health Services Administration (Summer) 39: 270.

Conley, Harry M. Consultant in Statistical Design, Statistical Analysis and Instructor - Corporate SPSS Instructor, Former Director for Sampling Methodology, United States General Accounting Office, Washington, DC. *Statistical Advisor for Methodology and Data Interpretation of GMP for Captain Nick Coppola*, October-December 1996.

Cooper, Donald R. and C. William Emory. 1995. Business Research Methods, 5th ed. Chicago: Richard D. Irwin Inc..

Coppola, Nicholas M. 1994. Physical disability review system, taking care of your soldiers. Infantry 84(Mar-Apr):44-46.

Coppola, Nicholas M. 1997. Statistical Measurement and Analysis of Claimant and Demographic Variables Affecting Processing and Adjudication Duration in The United States Army Physical Disability Evaluation System. Graduate Management Project, US Army-Baylor University Graduate Program in Health Care Administration. Office of the Surgeon General, Washington, DC.

Drucker, Peter F. 1989. What business can learn from nonprofits. Harvard Business Review 67:3, 91.

Fragala, M. R. and B. G. McCaughey. 1991. Suicide following medical/physical evaluation boards: a complication unique to military psychiatry. Military Medicine 156(4):206-209.

Fottler, Myron D., and Robert L. Phillips, and John D. Blair, and Catherine A. Duran. 1990. Achieving competitive advantage through strategic human resource management. Hospital and Health Services Administration 35(3): 325-347.

General Accounting Office. 1992. Using Statistical Sampling-GAO/PEMD-10.1.6. United States Government Accounting Office, Washington, DC.

Gregory, Douglas D. 1986. Building on your hospital's competitive image. Trustee 39(3): 16-19.

Griffith, John R. 1987. The Well-managed Community Hospital. Ann Arbor, MI: Health Administration Press.

Griffith, John R. 1989. Principles of the well-managed community hospital. *Hospital and Health Services Administration* 34(4): 91-104.

Grisdale, Ann S. Lieutenant Colonel, US Army, Personnel Management Officer, US Army Physical Disability Agency. *Great Plains Regional Medical Command Readiness Conference*. Information from slide presentation. June 1997.

Heaton, L. D. 1967. Physical Standards in World War II. Washington, D.C.: Government Printing Office

Kovner, Anthony R. 1995. *Jonas's Health Care Delivery in the United States*. New York: Springer Publishing Company.

Laabs, J. J. 1993. Steelcase slashes worker's comp costs. Personnel Journal. 72:72-87.

LaNoue, Alcide Lieutenant General (Ret), former U.S. Army Surgeon General 1996. The Future Vision of the Army Medical Department (AMEDD), FY 96 White Paper, http://www.medcom.amedd.army.mil/otsg/ameddwhi/disk01/backgr.htm#page56.

LaNoue, Alcide Lieutenant General (Ret), former U.S. Army Surgeon General 1996. Speech to Fitzsimons Army Medical Center Graduation Ceremony, June 8, 1996, http://www.medcom.amedd.army.mil/otsg/usmed96.htm.

Levey, Samuel. 1992. Hospital Leadership and Accountability. Ann Arbor, MI: Health Administration Press.

MEDCOM homepage. 1996. *http://140.139.12.250/medcom/mission.htm.* Internet access.

Nathanson, Philip. 1994. Influencing physician practice patterns. *Topics in Health Care Financing*. 20(4):16-25.

Neel, S. 1973. *Medical Support of the U.S. Army in Vietnam 1965-1970*. Washington, D.C.:Government Printing Office

Norusis, Marija. 1996. *SPSS 6.1 Guide to Data Analysis*. New Jersey: Prentice-Hall.

O'Connell, Brian. 1985. The Board Member's Book. New York:The Foundation Center.

O'Connor, Stephen J. and Richard M. Shewchuk. 1995. Service quality revisited: striving for a new orientation. Hospital and Health Services Administration 40(4):535-552.

Pedhazur, E. J. 1982. Multiple Regression in Behavioral Research. 2nd ed. New York: Holt, Rinehart and Winston.

Peters, T., and R. Waterman. 1982. In Search of Excellence. New York:Harper & Row.

Rumph, Jerry and William T. Goforth. 1996. Irwin Army Community Hospital's 1997-98 Strategic Quality Plan. Fort Riley, KS: Reengineering Committee.

Shortell, Stephen M., and Ellen M. Morrison, and Bernard Friedman. 1990. Strategic Choices for America's Hospitals: Managing Change in Turbulent Times. San Francisco: Jossey-Bass.

Title 10, United States Code

U.S. Department of Defense Instruction. 1332.38. Physical Disability Evaluation. November 14, 1996. Washington, D.C.: Government Printing Office.

U.S. Department of Defense Directive 1332.18. Separation or Retirement for Physical Disability. November 4, 1996. Washington, D.C.: Government Printing Office.

Voaklander DC, P. A. Beauline, and R. A. Lassard. 1995. Factors related to outcome following a work hardening program. Journal of Occupational Rehabilitation. 5:71-85.

Zilg, R. J. 1992. Integrating managed care and worker's compensation: problems and opportunities. Benefits Law Journal 5:227-42.

APPENDIX A
DESCRIPTIVE STATISTICS FOR EACH INDEPENDENT VARIABLE

ADM_SVC Admitting Service

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Orthopedics	1	85	61.2	61.2	61.2
Internal Medicine	2	18	12.9	12.9	74.1
Primary Care Clinic,	3	23	16.5	16.5	90.6
Psych, Comm. Mental	4	4	2.9	2.9	93.5
Neurology	5	4	2.9	2.9	96.4
Other	6	5	3.6	3.6	100.0
	Total	139	100.0	100.0	

Mean	1.842	Std err	.111	Median	1.000
Mode	1.000	Std dev	1.309	Variance	1.714
Range	5.000	Minimum	1.000	Maximum	6.000
Sum	256.000				

Valid cases 139 Missing cases 0

- -

AGE Age Group

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Age < 20 years	1	4	2.9	2.9	2.9
21-25 years	2	51	36.7	36.7	39.6
26-30 years	3	37	26.6	26.6	66.2
31-35 years	4	27	19.4	19.4	85.6
36-40 years	5	12	8.6	8.6	94.2
41-45 years	6	6	4.3	4.3	98.6
46-50 years	7	1	.7	.7	99.3
	8	1	.7	.7	100.0
	Total	139	100.0	100.0	

Mean	3.137	Std err	.111	Median	3.000
Mode	2.000	Std dev	1.303	Variance	1.699
Range	7.000	Minimum	1.000	Maximum	8.000
Sum	436.000				

Valid cases 139 Missing cases 0

APPENDIX A (Continued)
DESCRIPTIVE STATISTICS FOR EACH INDEPENDENT VARIABLE

COMP_AWD Compensation Award

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
0%, Fit For Duty, Se	1	58	41.7	41.7	41.7
10-20% Compensation	2	69	49.6	49.6	91.4
30-40% Compensation	3	9	6.5	6.5	97.8
50-100% Compensation	4	3	2.2	2.2	100.0
	Total	139	100.0	100.0	

Mean	1.691	Std err	.059	Median	2.000
Mode	2.000	Std dev	.690	Variance	.476
Range	3.000	Minimum	1.000	Maximum	4.000
Sum	235.000				

Valid cases 139 Missing cases 0

- -

CONGRESS Congressional Involvement

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
No	0	138	99.3	99.3	99.3
Yes	1	1	.7	.7	100.0
	Total	139	100.0	100.0	

Mean	.007	Std err	.007	Median	.000
Mode	.000	Std dev	.085	Variance	.007
Range	1.000	Minimum	.000	Maximum	1.000
Sum	1.000				

Valid cases 139 Missing cases 0

APPENDIX A (Continued)
DESCRIPTIVE STATISTICS FOR EACH INDEPENDENT VARIABLE

DS_DS Desert Storm/Shield Participant

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
No	0	106	76.3	76.3	76.3
Yes	1	33	23.7	23.7	100.0
	Total	139	100.0	100.0	

Mean	.237	Std err	.036	Median	.000
Mode	.000	Std dev	.427	Variance	.182
Range	1.000	Minimum	.000	Maximum	1.000
Sum	33.000				

Valid cases 139 Missing cases 0

- -

ED_LVL Educational Level

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
High School Grad/GED	1	108	77.7	77.7	77.7
Some college	2	24	17.3	17.3	95.0
Bachelor's or greate	3	7	5.0	5.0	100.0
	Total	139	100.0	100.0	

Mean	1.273	Std err	.047	Median	1.000
Mode	1.000	Std dev	.549	Variance	.302
Range	2.000	Minimum	1.000	Maximum	3.000
Sum	177.000				

Valid cases 139 Missing cases 0

APPENDIX A (Continued)
DESCRIPTIVE STATISTICS FOR EACH INDEPENDENT VARIABLE

ELIG_RET SM Eligible to Retire

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
No	0	135	97.1	97.1	97.1
Yes	1	4	2.9	2.9	100.0
	Total	139	100.0	100.0	

Mean	.029	Std err	.014	Median	.000
Mode	.000	Std dev	.168	Variance	.028
Range	1.000	Minimum	.000	Maximum	1.000
Sum	4.000				
Valid cases	139	Missing cases	0		

- -

FORM_PEB SM Requested/Received Formal PEB

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
No	0	116	83.5	83.5	83.5
Yes	1	23	16.5	16.5	100.0
	Total	139	100.0	100.0	

Mean	.165	Std err	.032	Median	.000
Mode	.000	Std dev	.373	Variance	.139
Range	1.000	Minimum	.000	Maximum	1.000
Sum	23.000				
Valid cases	139	Missing cases	0		

APPENDIX A (Continued)
DESCRIPTIVE STATISTICS FOR EACH INDEPENDENT VARIABLE

GENDER Sex of Service Member

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Female	0	19	13.7	13.7	13.7
Male	1	120	86.3	86.3	100.0
	Total	139	100.0	100.0	

Mean	.863	Std err	.029	Median	1.000
Mode	1.000	Std dev	.345	Variance	.119
Range	1.000	Minimum	.000	Maximum	1.000
Sum	120.000				

Valid cases 139 Missing cases 0

- -

GRADE Grade Category

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
E1-E4	1	79	56.8	56.8	56.8
E5-E6	2	54	38.8	38.8	95.7
E7-E9	3	4	2.9	2.9	98.6
WO1-CW5, 01-06	4	2	1.4	1.4	100.0
	Total	139	100.0	100.0	

Mean	1.489	Std err	.053	Median	1.000
Mode	1.000	Std dev	.630	Variance	.397
Range	3.000	Minimum	1.000	Maximum	4.000
Sum	207.000				

Valid cases 139 Missing cases 0

APPENDIX A (Continued)
DESCRIPTIVE STATISTICS FOR EACH INDEPENDENT VARIABLE

LGTH_SVC Length of Service

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
1-5 years	1	71	51.1	51.1	51.1
6-10 years	2	43	30.9	30.9	82.0
11-15 years	3	18	12.9	12.9	95.0
16-19 years	4	3	2.2	2.2	97.1
20-25 years	5	2	1.4	1.4	98.6
26-30 years	6	2	1.4	1.4	100.0
	Total	139	100.0	100.0	

Mean	1.763	Std err	.086	Median	1.000
Mode	1.000	Std dev	1.019	Variance	1.037
Range	5.000	Minimum	1.000	Maximum	6.000
Sum	245.000				

Valid cases 139 Missing cases 0

- -

M_STATUS Marital Status

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Not married (single,	0	38	27.3	27.3	27.3
Married	1	101	72.7	72.7	100.0
	Total	139	100.0	100.0	

Mean	.727	Std err	.038	Median	1.000
Mode	1.000	Std dev	.447	Variance	.200
Range	1.000	Minimum	.000	Maximum	1.000
Sum	101.000				

Valid cases 139 Missing cases 0

APPENDIX A (Continued)
DESCRIPTIVE STATISTICS FOR EACH INDEPENDENT VARIABLE

MEDHOLD Assigned/Attached to MEDHOLD

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
No	0	128	92.1	92.1	92.1
Yes	1	11	7.9	7.9	100.0
	Total	139	100.0	100.0	

Mean	.079	Std err	.023	Median	.000
Mode	.000	Std dev	.271	Variance	.073
Range	1.000	Minimum	.000	Maximum	1.000
Sum	11.000				

Valid cases 139 Missing cases 0

- -

MTF_CARE Location of Medical Care

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Other locations	0	33	23.7	23.7	23.7
MTF- Irwin Army Comm	1	106	76.3	76.3	100.0
	Total	139	100.0	100.0	

Mean	.763	Std err	.036	Median	1.000
Mode	1.000	Std dev	.427	Variance	.182
Range	1.000	Minimum	.000	Maximum	1.000
Sum	106.000				

Valid cases 139 Missing cases 0

APPENDIX A (Continued)
DESCRIPTIVE STATISTICS FOR EACH INDEPENDENT VARIABLE

NUM_DEP Number of SM's Dependents

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
No (zero) dependents	1	34	24.5	24.5	24.5
1 dependent	2	26	18.7	18.7	43.2
2 dependents	3	30	21.6	21.6	64.7
3 or more dependents	4	49	35.3	35.3	100.0
	Total	139	100.0	100.0	

Mean	2.676	Std err	.101	Median	3.000
Mode	4.000	Std dev	1.193	Variance	1.423
Range	3.000	Minimum	1.000	Maximum	4.000
Sum	372.000				

Valid cases 139 Missing cases 0

- -

RACE Service Member's Race

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
African American	1	41	29.5	29.5	29.5
Caucasian	2	90	64.7	64.7	94.2
Other	3	8	5.8	5.8	100.0
	Total	139	100.0	100.0	

Mean	1.763	Std err	.046	Median	2.000
Mode	2.000	Std dev	.546	Variance	.298
Range	2.000	Minimum	1.000	Maximum	3.000
Sum	245.000				

Valid cases 139 Missing cases 0

APPENDIX A (Continued)
DESCRIPTIVE STATISTICS FOR EACH INDEPENDENT VARIABLE

UNIT_TYP SM's unit type

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Combat Spt / Combat	0	55	39.6	39.6	39.6
Combat Arms	1	84	60.4	60.4	100.0
	Total	139	100.0	100.0	

Mean	.604	Std err	.042	Median	1.000
Mode	1.000	Std dev	.491	Variance	.241
Range	1.000	Minimum	.000	Maximum	1.000
Sum	84.000				

Valid cases 139 Missing cases 0

APPENDIX B
DESCRIPTIVE STATISTICS FOR EACH DEPENDENT VARIABLE

TOTL_DAY Total Number of Processing Days

Mean	131.885	Std err	5.866	Median	123.000
Mode	62.000	Std dev	69.163	Variance	4783.494
Range	373.000	Minimum	11.000	Maximum	384.000
Sum	18332.000				
Valid cases	139	Missing cases	0		

- -

MEB_DAYS MEB Stage- # of Processing Days

Mean	73.281	Std err	3.374	Median	66.000
Mode	66.000	Std dev	39.784	Variance	1582.740
Range	199.000	Minimum	3.000	Maximum	202.000
Sum	10186.000				
Valid cases	139	Missing cases	0		

- -

PEB_DAYS PEB Stage- # of Processing Days

Mean	35.360	Std err	4.252	Median	19.000
Mode	13.000	Std dev	50.127	Variance	2512.754
Range	314.000	Minimum	.000	Maximum	314.000
Sum	4915.000				
Valid cases	139	Missing cases	0		

- -

PDA_DAYS USAPDA Stage- # of Processing Days

Mean	23.245	Std err	1.445	Median	20.000
Mode	20.000	Std dev	17.036	Variance	290.215
Range	118.000	Minimum	.000	Maximum	118.000
Sum	3231.000				
Valid cases	139	Missing cases	0		

APPENDIX C

IRWIN ARMY COMMUNITY HOSPITAL
MEDICAL BOARD ROUTING WORKSHEET

AD___ AGR___ NG___ USAR___

PATIENT NAME_____ RANK _____

SSN_____ DUTY PHONE_____ HOME PH_____

UNIT_____ ETS _____

PRIMARY DOCTOR_____ TMC# or ADMITTING SERVICE_____

MEDHOLD: YES____ NO____ MMRB CONDUCTED: YES____ NO____

CCEP REQUIRED: YES____ NO____

ACTION	DATE INITIATED	DATE COMPLETED	POC/ INITIALS, REMARKS
1. Physician initiates DA Fm 3349 (Physical Profile) for a P3 or P4 profile and annotates MEBD pending in block 9. Soldier/patient is notified of pending MEBD. Patient told to report to PEBLO.		(Day 1)	Dr. _____ Initials_____
2. Patient reports to PEBLO for initial briefing. Patient told to schedule ACAP appointment. PEBLO assists patient in scheduling physical exam (PE). Patient tracking initiated by PEBLO. Patient maintains health record (HREC) and brings record to the scheduled PE.		(Day 1)	PEBLO _____ Date PE schd:_____
Admitting service/medical clinic personnel type DA Fm 3349, have all appropriate physicians sign, and forward profile to DCCS. DCCS reviews and signs DA Fm 3349. Completed DA 3349 forwarded to PAD for distribution (Unit Cdr, Strength Mgmt, 1st PSB, HREC).	********* *Initiated on Day 1 when physician hand writes profile.* **********	********** *Type, review, and sign by Day 10.* **********	
3. Routine physical exam performed. Patient brings HREC to Physical Exam Clinic (PEC). Patient leaves HREC at PEC and it is placed in the MEBD distro box for pick-up by the PEBLO. The completed PE is placed in the MEBD distro box for pick-up by the PEBLO.		(Day 15)	PEC Rep._____ Actual date of PE _____
4. PEBLO reviews PE and schedules a NARSUM appointment with the physician who initiated the MEBD. PEBLO informs the patient when and where to report. Patient told to pick-up HREC (w/PE) at PEBLO's office prior to NARSUM appointment with physician.		(Day 18)	PEBLO _____ Date NARSUM appt schd:_____

ACTION	DATE INITIATED	DATE COMPLETED	POC/ INITIALS, REMARKS
5. NARSUM Appointment. Patient picks-up HREC from PEBLO office and takes HREC to NARSUM appointment with physician. Physician reviews HREC and questions patient concerning personal history, etc. **Physician dictates NARSUM** on the Lanier System. Physician directs patient to return HREC to PEBLO's office or returns record to PEBLO using the MEBD distribution box located in the clinic.		(Day 38)	Dr. _____ Initials_____
6. NARSUM draft received and typed by IACH transcription service. Transcription delivers draft NARSUM to PEBLO.		(Day 40)	
7. **Initial Patient Work-Up.** PEBLO obtains draft NARSUM and performs initial work up. PEBLO contacts patient, schedules appointment and reviews NARSUM with patient. They verify and update draft NARSUM . PEBLO delivers updated NARSUM and MEBD worksheet to physician for final review. PEBLO also issues MEBD suspense actions for the soldier and his/her unit commander to accomplish. PEBLO takes patients HREC to Correspondence for duplication.		(Day 47)	PEBLO _____ *** Expect 1 hour block for PEBLO-patient briefing.**
8. PEBLO obtains patient's HREC and requested photocopies from Correspondence.		(Day 50)	
9. Physician completes the NARSUM review and places updated NARSUM and MEBD worksheet in the PEBLO's MEBD distribution box located in each clinic.		(Day 51)	Dr. _____ Initials_____
10. PEBLO picks-up updated NARSUM and presents it to transcription for final type.		(Day 53)	PEBLO _____
11. **Final NARSUM typed.** Updated NARSUM retyped by transcription. Transcription delivers NARSUM to PEBLO when complete.		(Day 55)	Technician_____ Initials_____ *** Start of 30 day Standard***
12. PEBLO assembles MEBD packet for signature and final approval. PEBLO delivers completed packet to the first health care provider (HCP).		(Day 60)	PEBLO _____ **D+5**
13. HCP #1 receives MEBD packet, reviews for accuracy, and signs. HCP #1 delivers MEBD packet to HCP #2.		(Day 62)	HCP#1_____ Initials _____ **D+7**

ACTION	DATE INITIATED	DATE COMPLETED	POC/INITIALS, REMARKS
14. HCP #2 receives MEBD packet, reviews for accuracy, and signs. PEBLO delivers to DCCS. *[HCP #3 signs MEBD when required]*		(Day 64)	HCP#2 _____ Initials _____ D+9
15. DCCS receives MEBD packet, reviews for accuracy, and approves. PEBLO picks-up packet within 2 days of delivery.		(Day 66)	DCCS _____ D+11
16. PEBLO reviews MEBD packet and explains findings with patient. If patient concurs, patient signs MEBD documents where appropriate.		(Day 71)	PEBLO _____ D+16
17. If patient nonconcurs, patient has 72 hours to present a written appeal to the PEBLO. PEBLO forwards appeal and original MEBD to DCCS.		(Day 75)	PEBLO _____ D+20
18. DCCS reviews appeal and directs appropriate action. Completed packets are picked-up by the PEBLO.		(Day 78)	DCCS _____ D+23
19. PEBLO notifies patient of DCCS's decision via phone. PEBLO reviews final results with patient.		(Day 80)	PEBLO_____ D+25
Further review by OTSG required if patient refused recommended medical treatment IAW AR 600-20.			
20. MEBD packet photocopied in triplicate. Copies of MEBD and HREC are sent to the PEB in Ft. Lewis, WA. Expected delivery time- 4 days.		(Day 85)	PEBLO _____ * End of 30 day standard*

Definition of Acronyms:

DA: Department of the Army
DCCS: Deputy Commander of Clinical Services
HCP: health care provider (physician, physician assistant)
HREC: health record, folder used to store all active duty health related information
IACH: Irwin Army Community Hospital
MEBD: Medical Evaluation Board
NARSUM: narrative summary
PAD: Patient Administration Division
PEB: Physical Evaluation Board
PEBLO: Physical Evaluation Board Liaison Officer
PSB: Personnel Support Battalion

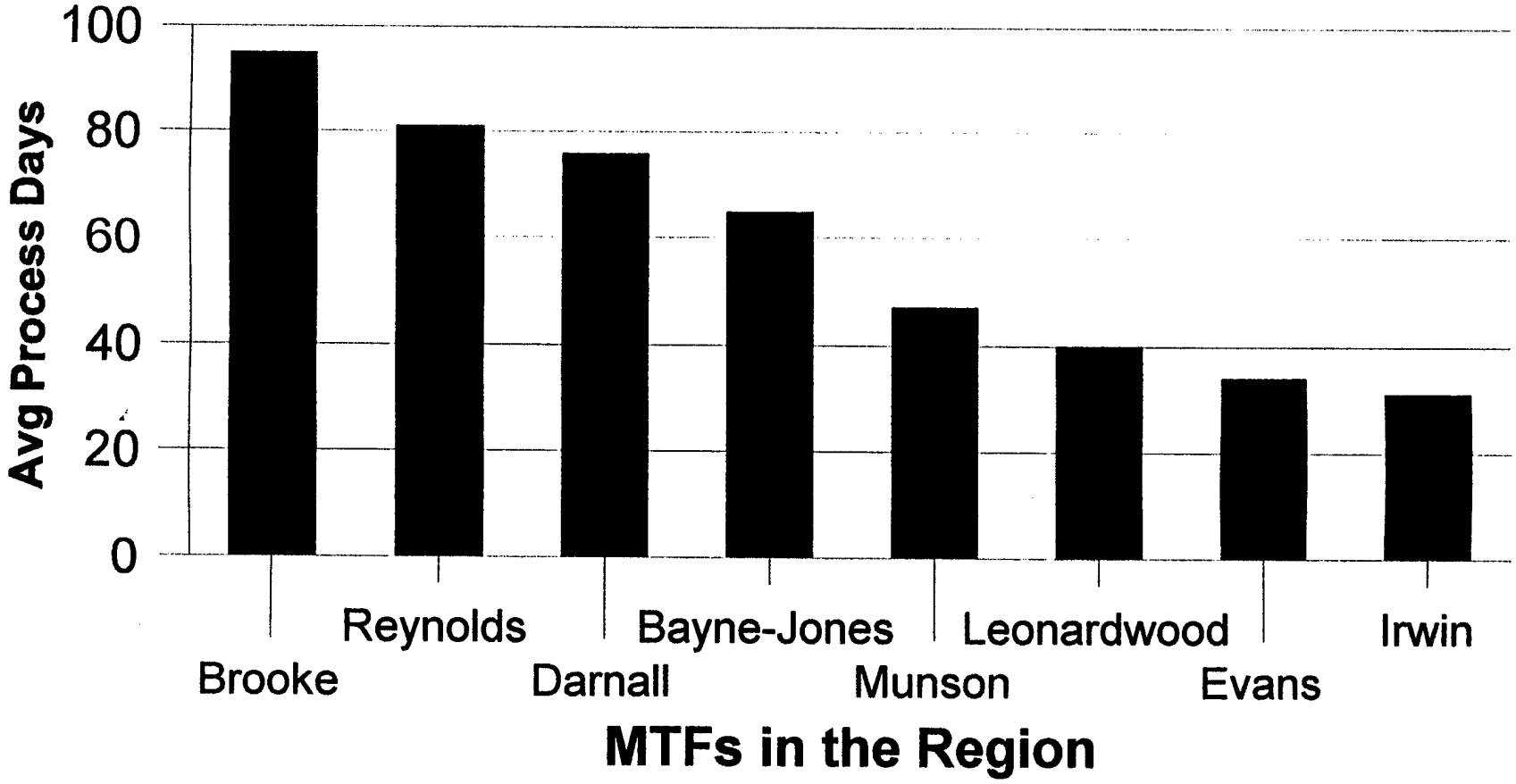
****

ADDRESS QUESTIONS OR COMMENTS CONCERNING THE MEBD PROCESS TO IACH'S PEBLO, MR. HENRY, AT 239-7747.

****

MTF PDES Processing Time

Great Plains Regional Medical Command



FY 97 (through 30 May 97)